

Achieving Efficient Remanufacturing through Product-Service Systems

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Abstract

Remanufacturing is an industrial process where used products are put back into working order. One of the largest challenges with remanufacturing is to retrieve the correct amount of used products at the correct time. Additionally, the condition of the used products aimed for remanufacturing can sometimes be hard to determine in advance. Knowledge about these challenges would improve the possibilities to achieve an efficient and highly profitable remanufacturing process. In order to achieve a more efficient remanufacturing process is to have a business model that goes hand in hand with remanufacturing. This could be addressed by providing the end user an offering to use the products instead of traditionally sell the product. This is what academic usually describe as a product-service system (PSS). This poster explore the potential of combining remanufacturing with product-service systems.

Biography

Erik Sundin is an associate professor in manufacturing engineering at the Department of Management and Engineering of Linköping University, Sweden. He received Ph.D. in the area of *Product and Process Design for Successful Remanufacturing* and MS in Applied Physics and Electrical Engineering from Linköping University. Most of his research has been focusing around remanufacturing. Recently he is focusing on Sustainable Production and the development of Product/Service Systems (PSS). In remanufacturing Dr. Sundin is a part of a European Union project called CAN-Reman with participating researchers and companies in Germany, Spain and Sweden. The project focuses on find out how remanufacturer could start performing remanufacturing on valuable components used in the CAN-bus system in cars. In parallel He is also working in research focusing on the development of reuse and recycle flat panel displays to develop equipment for disassembly of used flat panel displays in order to recover valuable components and/or materials. During his Ph.D. research, Dr. Sundin has been analyzing several kinds of remanufacturing facilities in Sweden, Canada and Japan. The companies that have been studied are remanufacturing products such as; toner cartridges, gasoline engines, single-use cameras, brake calipers, and forklift trucks. Also, in the remanufacturing research area he has been involved in starting up the new *Journal of Remanufacturing* (Springer) in which Dr. Sundin is regional editor for European Union together with Professor Daniel Brissaud, University of Grenoble, France. Within the research area of PSS he has started up the international research network called The International PSS Design Research Community which includes researchers from Japan, Germany, Denmark, UK, France and Sweden. More locally Dr. Sundin is a part of ManuServ – Centre for service research in manufacturing industry at Linköping University. He has published numerous journal and conference papers.